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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,172	03/30/2004	Mahesh K. Jeerage	H0005492-1633	3349
7590 01/31/2006			EXAMINER	
Matthew S. Luxton Law Dept. AB2 101 Columbia Road Morristown, NJ 07962			TO, TUAN C	
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/812,172

Applicant(s)

JEERAGE ET AL.

Examiner

Tuan C. To

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-19 is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/30/3004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/01/04, 04/22/05</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 5, 6, 9, and 15, the statements of intended use or field of use, "operable to" clauses provide language that suggests or makes optional but does not require steps to be performed or does not limit the scope of a claim or claim limitation (MPEP § 2106(II,C)). Accordingly, the metes and bound of the claim can not be ascertained by one having ordinary skill in the art.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groves (US 20040012522A1) and in view of Kain et al. (US 5894323A).

With respect to claim 1, the U.S. reference '522A1 to Groves discloses a system for enhancing navigation system that comprises a processor (Groves, page 1, paragraph 2, line 3), an IMU collocated with a GPS receiver (Groves, page 1, paragraph 2, lines 1-6; paragraph 9, lines 1-4).

Groves does not disclose a receiver antenna and a single coaxial cable.

Kain et al. disclose another system for enhancing navigation system, comprising: a GPS receiver antenna and a single coaxial cable (Kain et al., figure 3, GPS antenna 48; Figure 2, cable 86; column 7, lines 40-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Groves to include the teachings as taught by Kain et al. to gain advantage therefore (i.e., during aircraft flight, the position of an

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aircraft is accurately determined, aircraft system uses differential GPS for steering the aircraft to accuracies of 1-3m).

With regard to claim 2, Groves teaches “the RF position data is GPS data” (Groves, paragraph 2, lines 9-15).

With regard to claim 3, Groves further teaches “the RF position data is Galileo data” (Groves, paragraph 2, lines 9-15).

With regard to claim 4, Groves further teaches “the IMU is a micro electromechanical system” (see Groves, lines 1 and 2).

With regard to claims 5 and 6, Groves further discloses at least one filter (see Groves, paragraph 4, line 6, Kalman filter).

With regard to claim 7, Groves discloses that the system of INS/GPS is mounted on an aircraft (Groves, paragraph 2, lines 8 and 9).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Groves (US 20040012522A1) and in view of Sagem (EP 820158A1).

As set forth herein above, the reference to Groves disclose the INS/GPS integration system as recited in claim 1 except for “the single coaxial cable passes through an interior portion of a wing of an aircraft”. The reference to Sagem discloses another system for enhancing navigation including a single cable passes through an interior portion of a wing of an aircraft (see figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Groves to include the teachings as taught by Sagem to gain advantage therefore (i.e., delivering power and data from the main

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control system on the aircraft to the sensor devices or other element mounted at the aircraft wing).

***Allowable Subject Matter***

Claims 16-19 are allowable since none of the prior art has been found fairly suggests or discloses the limitations as now recited in claim 16.

Claims 9-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusions***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner,

A handwritten signature in black ink, appearing to read 'Tuan C To', written over a horizontal line.

Tuan C To

January 18, 2006